

In the claims:

For the convenience of the Examiner, all claims under consideration, whether or not amended, are presented below.

C1 1. **(Amended)** A method for potentiating morphogen activity, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby potentiating morphogen activity.

2. **(Reiterated)** A method for promoting neuronal cell growth, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby to potentiate growth-promoting effects of endogenous morphogens.

3. **(Reiterated)** A method for treating a disorder characterized by neuronal cell loss, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby to potentiate growth-promoting effects of endogenous morphogens.

C4 4. **(Amended)** A method for treating a neurodegenerative disorder, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby treating a neurodegenerative disorder.

5. **(Reiterated)** The method of claim 1, wherein said morphogen activity is endogenous.

6. **(Reiterated)** The method of claim 1, wherein said morphogen activity is the result of an exogenously provided morphogen.

7. **(Reiterated)** The method of claim 4, wherein said composition further comprises a morphogen.

8. **(Reiterated)** The method of claim 3 or 4, wherein said disorder is Alzheimer's disease, Parkinson's disease, Huntington's disease, senile dementia, alcohol-induced dementia, or stroke.

9. **(Reiterated)** The method of claim 1, 2, 3 or 4, wherein said molecule that overcomes morphogen inhibition is a cytokine antagonist, a retinoid antagonist, or a protein kinase A inhibitor.

10. **(Reiterated)** The method of claim 9, wherein said cytokine antagonist is a neuropoetic cytokine antagonist.

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C<sub>9</sub> 11. **(Amended)** The method of claim 10, wherein said neuropoetic cytokine antagonist is an LIF (Leukemia-Inhibitory Factor) antagonist or a CNTF (Ciliary Neurotrophic Factor) antagonist.

12. **(Amended)** The method of claim 11, wherein said LIF (Leukemia-Inhibitory Factor) antagonist is a monoclonal antibody to the gp130 protein.

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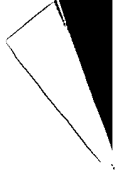
16. **(Amended)** The method of claim 7, wherein said morphogen comprises an amino acid sequence selected from a sequence: (a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1 (Osteogenic Protein 1), residues 330-431 of SEQ ID NO: 2; (b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1; (c) defined by Generic Sequence 7, SEQ ID NO: 4; (d) defined by Generic Sequence 8, SEQ ID NO: 5; (e) defined by Generic Sequence 9, SEQ ID NO: 6; (f) defined by Generic Sequence 10, SEQ ID NO: 7; or (g) defined by OPX, SEQ ID NO: 3.

C<sub>10</sub> 17. **(Amended)** The method of claim 7, wherein said morphogen is human OP-1 (Osteogenic Protein 1), mouse OP-1, human OP-2 (Osteogenic Protein 2), mouse OP-2, 60A, GDF-1 (Growth/Differentiation Factor-1), BMP2A (Bone Morphogenesis Protein 2A), BMP2B (Bone Morphogenesis Protein 2B), DPP (Decapentaplegic), Vgl, Vgr-1 (Vgl-related sequence), BMP3 (Bone Morphogenesis Protein 3), BMP5 (Bone Morphogenesis Protein 5), or BMP6 (Bone Morphogenesis Protein 6).

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18. **(Reiterated)** The method of claim 7, wherein said morphogen is OP-1.

19. **(Reiterated)** The method of claim 1, wherein the molecule binds an endogenous ligand for a cytokine receptor or a retinoid receptor.

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22. **(Reiterated)** The method of claim 19, wherein said retinoid receptor is a retinoic acid receptor.
  23. **(Reiterated)** The method of claim 19, wherein said retinoid receptor is a retinoid X receptor.
  24. **(Reiterated)** The method of claim 1, wherein the molecule is a cAMP-dependent messenger pathway inhibitor.
  25. **(Reiterated)** The method of claim 24, wherein said cAMP-dependent messenger pathway inhibitor comprises a protein kinase A inhibitor.
  26. **(Reiterated)** The method of claim 25, wherein said protein kinase A inhibitor is (2-p-bromocynnamylaminoethyl)-5-isoquinolinesulfonamide, an enantiomer of dibutyryl cAMP, or an enantiomer of cAMP.

*The claims presented above incorporate changes as indicated by the marked-up versions below.*

1. **(Amended)** A method for potentiating morphogen activity, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby potentiating morphogen activity.
4. **(Amended)** A method for treating a neurodegenerative disorder, comprising administering to a mammal a composition comprising a molecule that overcomes morphogen inhibition, thereby treating a neurodegenerative disorder.
11. **(Amended)** The method of claim 10, wherein said neuropoetic cytokine antagonist is an LIF (Leukemia-Inhibitory Factor) antagonist or a ~~CTNF~~ CNTF (Ciliary Neurotrophic Factor) antagonist.
12. **(Amended)** The method of claim 11, wherein said LIF (Leukemia-Inhibitory Factor) antagonist is a monoclonal antibody to the gp130 protein.
16. **(Amended)** The method of claim 7, wherein said morphogen comprises an amino acid sequence selected from a sequence: (a) having at least 70% homology with the C-

terminal seven-cysteine skeleton of human OP-1 (Osteogenic Protein 1), residues 330-431 of SEQ ID NO: 2; (b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1; (c) defined by Generic Sequence 7, SEQ ID NO: 4; (d) defined by Generic Sequence 8, SEQ ID NO: 5; (e) defined by Generic Sequence 9, SEQ ID NO: 6; (f) defined by Generic Sequence 10, SEQ ID NO: 7; or (g) defined by OPX, SEQ ID NO: 3.

17. **(Amended)** The method of claim 7, wherein said morphogen is human OP-1 (Osteogenic Protein 1), mouse OP-1, human OP-2 (Osteogenic Protein 2), mouse OP-2, 60A, GDF-1 (Growth/Differentiation Factor-1), BMP2A (Bone Morphogenesis Protein 2A), BMP2B (Bone Morphogenesis Protein 2B), DPP (Decapentaplegic), Vgl, Vgr-1 (Vgl-related sequence), BMP3 (Bone Morphogenesis Protein 3), BMP5 (Bone Morphogenesis Protein 5), or BMP6 (Bone Morphogenesis Protein 6).